



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,537	12/22/2000	Robert A. Migliorini	10212	2084

23455 7590 02/12/2003

EXXONMOBIL CHEMICAL COMPANY  
P O BOX 2149  
BAYTOWN, TX 77522-2149

EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
----------	--------------

1773

DATE MAILED: 02/12/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/747,537

Applicant(s)

MIGLIORINI ET AL.

Examiner

Kevin R Kruer

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-7 and 9-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-10, 13-28, 30, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Dries et al. (US 5,529,843). Dries teaches a composite film having a base layer that is predominately polypropylene, and at least one top layer (abstract). The polypropylene is preferably isotactic polypropylene (col 3, lines 2+). In addition to the isotactic polypropylene, the base layer may further comprise (a) 1-50wt% of copolymers and/or terpolymers and/or other polyolefins, such as polyethylene, HDPE, LDPE, LLDPE (col 3, lines 19+), and (b) 1-30wt% of a low molecular weight resin (col 6, lines 50+). The low molecular weight resin can be selected from the group consisting of petroleum resins, styrene resins, cyclopentadiene resins, and terpene resins. Specifically, the hydrocarbon can be a hydrogenated cyclopentadiene (which reads on applicant's "saturated alicyclic" of claim 7). The top layer comprises an olefinic homopolymer (col 4, lines 36+) and may comprise antiblocking agents (col 6, lines 19+). The composite film is biaxially oriented at a longitudinal stretching ratio of 4:1 to 7:1 and a traverse ratio of 6:1 to 11:1 (col 2, line 30). The total thickness of the composite film can vary from 10-120 microns, wherein the base layer comprises at least 90% of the thickness of the film (see Example 1).

The films are coextruded, biaxially oriented, and then flame treated on the surface of the layer intended to be corona treated (col 8, lines 30+). The film is oriented

Art Unit: 1773

in the machine direction at a temperature less than 140°C (col 9, lines 8+) and at a temperature of greater than 140°C in the traverse direction (col 9, lines 12+). The film is then wound (col 9, line 1). With respect to claim 22, the examiner takes the position that the five-layer embodiment of Dries reads on said claim.

With respect to claim 5, the examiner takes the position that “recycled” is a method limitation. Furthermore, there is no difference between recycled and virgin isotactic polypropylene. Specifically, the materials are considered to be identical because each material comprises the same monomeric units with the same stereoregularity. The courts have held that a method of making a product does not patentably distinguish said product from a product taught in the prior art unless it can be shown that the method of making the product inherently results in a materially different product. In the current application, no such showing has been made. Thus, the examiner maintains the position that the product taught in Dries is identical to the claimed product of claim 5 for the reasons stated above.

With respect to claim 30, the examiner takes the position that multiple layers of the same composition directly adjacent to one another are not patentably distinct from a single layer film of the same composition because the films identical.

With respect to claim 31, the examiner takes the position that the film inherently has the claimed shrinkage because the film taught by Dries comprises the same layers with the same composition and the same degree of orientation as the claimed film.

***Claim Rejections - 35 USC § 103***

Art Unit: 1773

1. Claims 1-11, 13-22, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bossaert et al. (US 4,921,749) in view of Blemberg et al (US 5,108,844). Bossaert teaches a film comprising a base layer of 70-97wt% of a polyolefin, and 3-30wt% of a low molecular weight resin. A surface layer comprising a random copolymer is applied to at least one surface of the base layer (abstract). The preferred polyolefin of the base layer is isotactic polypropylene (col 1, lines 49+). The low molecular weight resin may comprise hydrogenated petroleum resin (col 2, lines 4+). The surface layers comprise an ethylene-propylene copolymer comprising 1-20wt% ethylene. The film preferably has a thickness of 2-150 microns (col 3, lines 21+) wherein the outer layers each have a thickness of 0.05-2.5 microns (col 3, line 25). The film is stretched 5 times in the machine direction and 9 times in the traverse direction (see examples).

Bossaert does not teach that the core should comprise a polymeric modifier. However, Blemberg teaches blends having improved adhesion to each other when coextruded into multilayer films resulting from adjusting the components of the blend of the layers (abstract). Specifically, Blemberg teaches that if a first layer comprises film forming polymer or copolymer Y, and a second film comprises polymer or copolymer X, these layers can have improved adhesion to one another when formed into a multilayered film if the first layer comprises 10-30wt% X, and the second layer comprises 10-30%Y (col 2, lines 12+). Thus, it would have been obvious to one of ordinary skill in the art to blend 10-30wt% ethylene-propylene copolymer into the core layer in order to improve adhesion of the core to the skin layers.

Art Unit: 1773

With respect to claim 5, the examiner takes the position that "recycled" is a method limitation. Furthermore, there is no difference between recycled and virgin isotactic polypropylene. Specifically, the materials are considered to be identical because each material comprises the same monomeric units with the same stereoregularity. The courts have held that a method of making a product does not patentably distinguish said product from a product taught in the prior art unless it can be shown that the method of making the product inherently results in a materially different product. In the current application, no such showing has been made. Thus, the examiner maintains the position that the product taught in Bossaert is identical to the claimed product of claim 5 for the reasons

With respect to claim 30, the examiner takes the position that multiple layers of the same composition directly adjacent to one another are not patentably distinct from a single layer film of the same composition because the films identical.

With respect to claim 31, the examiner takes the position that the film necessarily has the claimed shrinkage because the film taught by Peet comprises the same layers with the same composition and the same degree of orientation as the claimed film stated above.

2. Claims 1-11, 13-21, 23-26, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuhmann et al (US 5,433,983) in view of Blemberg et al (US 5,108,844). Schuhmann teaches a sealable film having a base layer comprising polypropylene and 5-30wt% (col 3, line 1) of a hydrocarbon resin and at least one top layer comprising (a) an ethylene-propylene copolymer having an ethylene content of not

Art Unit: 1773

more than 10wt%, (b) a propylene/butene copolymer, (c) a propylene/ethylene/alpha-olefin terpolymer, (d) a blend of two or more of (a), (b), or (c) wherein at least one top layer contains an anti-blocking agent (abstract). The polypropylene is preferably isotactic propylene (col 2, line 48). The low molecular weight resin may comprise hydrogenated hydrocarbon resin, petroleum resin, styrene resin, cyclopentadiene resin and terpene resins (col 3, lines 23+). The film is stretched at a ratio of higher than 1:7.5 in the transverse direction and preferably in the range of 8:1 to 11:1 (col 5, line 15) and about 1:4 to 1:6 in the longitudinal direction (col 5, lines 5+). The film is longitudinally oriented at a temperature of 100-130°C. The film may be 20 microns thick (see example 1) wherein the core layer comprises over 90% of the film's total thickness (see example 1).

The film is coextruded, oriented (col 1, lines 61+), and then subjected to conventional treatments, such as corona and flame treatment, prior to winding (col 5, lines 5+)

Schuhmann does not teach that the core should comprise a polymeric modifier. However, Blemberg teaches blends having improved adhesion to each other when coextruded into multilayer films resulting from adjusting the components of the blend of the layers (abstract). Specifically, Blemberg teaches that if a first layer comprises film forming polymer or copolymer Y, and a second film comprises polymer or copolymer X, these layers can have improved adhesion to one another when formed into a multilayered film if the first layer comprises 10-30wt% X, and the second layer comprises 10-30%Y (col 2, lines 12+). Thus, it would have been obvious to one of

Art Unit: 1773

ordinary skill in the art to blend 10-30wt% of the composition comprising said top to the base layer in order to improve adhesion of the core to the skin layers. Schuhmann teaches the top layer may comprise a) an ethylene-propylene copolymer having an ethylene content of not more than 10wt%, (b) a propylene/butene copolymer, (c) a propylene/ethylene/alpha-olefin terpolymer, (d) a blend of two or more of (a), (b), or (c) wherein at least one top layer contains an anti-blocking agent (abstract).

With respect to claim 5, the examiner takes the position that "recycled" is a method limitation. Furthermore, there is no difference between recycled and virgin isotactic polypropylene. Specifically, the materials are considered to be identical because each material comprises the same monomeric units with the same stereoregularity. The courts have held that a method of making a product does not patentably distinguish said product from a product taught in the prior art unless it can be shown that the method of making the product inherently results in a materially different product. In the current application, no such showing has been made. Thus, the examiner maintains the position that the product taught in Schuhmann is identical to the claimed product of claim 5 for the reasons stated above.

With respect to claim 30, the examiner takes the position that multiple layers of the same composition directly adjacent to one another are not patentably distinct from a single layer film of the same composition because the films identical.

With respect to claim 31, the examiner takes the position that the film inherently has the claimed shrinkage because the film taught by Schuhmann comprises the same



Art Unit: 1773

layers with the same composition and the same degree of orientation as the claimed film.

3. Claims 1-7, 9-24, 26, 27, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller et al (US 5,691,043) in view of Peiffer et al (US 5,451,455). Keller teaches a uniaxially heat-shrinkable, biaxially oriented, multilayer film and at least one polyolefin containing skin layer adjacent said core layer is prepared by biaxially orienting a coextruded and thereafter orienting said coextrudate and thereafter orienting said coextrudate by stretching 10-40% in the machine direction. The core layer contains isotactic polypropylene and a modifier that reduces the crystallinity of the polypropylene by increasing chain imperfections (abstract). The core may comprise recycled PP (col 7, line 12+). The modifiers are included in amounts of less than 20wt% (see "the core" description of the specification) and can be selected from the group consisting of atactic polypropylene, syndiotactic polypropylene, ethylene-propylene copolymer, propylene-butylene copolymer, ethylene-propylene-butylene terpolymer and LLDPE (abstract). The skin layer can be selected from the group consisting of polypropylene, ethylene-propylene copolymer, polyethylene and ethylene-propylene-butylene terpolymer. At least one of the skin layers can be compounded with an anti-blocking effective amount (col 8, lines 26+). If desired, the exposed surface of the skin layer of skin layers can be treated in a known and conventional manner so that the film can be coated (col 8, lines 65+). The film traditionally has a thickness of 10-60 microns (col 9, lines 22+), wherein each skin has a thickness of 0.5-3 microns (col 8, lines 22+). The film is oriented 4 to 5 times in the machine direction and 7 to 8 times in the traverse

Art Unit: 1773

direction (col 9, lines 11+). Generally, the orientation temperature is 100-140°C (col 9, lines 10+).

Keller does not teach that the core layer should comprise hydrocarbon resin. However, Peiffer teaches the addition of 5-30wt% of a hydrocarbon resin to the isotactic polypropylene core of a biaxially oriented multilayer film (abstract) in order to improve the film's modulus of elasticity, tear resistance, and elongation at break (col 3, lines 39+). Such hydrocarbon resins include styrene, methylstyrene, butadiene, terpene, and cyclopentadiene (col 2, lines 50+). Therefore, it would have been obvious to add hydrocarbon resin to the core layer of the laminate taught in Keller in order to improve the film's modulus of elasticity, tear resistance, and elongation at break.

### ***Response to Arguments***

Applicant's arguments filed December 13, 2002 have been fully considered but they are not persuasive.

With respect to the rejections based upon Dries, Bossaert, and Schuhmann, Applicant argues that the references do not teach a shrink film. However, it is known in the art that molecularly oriented films are inherently heat shrinkable.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 703-305-0025. The examiner can normally be reached on Monday-Friday from 7:00a.m. to 4:00p.m.

Art Unit: 1773

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is 703-305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*krk*

krk

*Paul Thibodeau*  
Paul Thibodeau  
Supervisory Patent Examiner  
Technology Center 1700